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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,642	11/12/2003	Kazue Tanaka	17134	7885

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EXAMINER	
JAWORSKI, FRANCIS J	
ART UNIT	**PAPER NUMBER**
3768	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	02/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/706,642	TANAKA, KAZUE	
	Examiner	Art Unit	
	Jaworski Francis J.	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1 - 34* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claim 1, 25 drawn to Broad Combination of an Ultrasound Driver and Sweep Operation Control Portion, and Method, classified in class 601, subclass 2.

II. Claims 2 - 5, drawn to Combination of Ultrasound Driver and Sweep Operation Control Portion and Handpiece and subcombination Specificity where Handpiece Characteristic Discrimination Controls Sweep Operation Control, classified in class 606, subclass 1.

III. Claims 6 - 18, and 20, 28 - 30 drawn to Combination of Driver and Sweep Operation Control Portion....per Group II, and with further subcombination specificity where sweep control includes sweep speed control and resonance point tracking, and method of sweep speed changing classified in class 606, subclass 1.

IV. Claims 19 and 31, drawn to Combination of Rank of Group III with further subcombination feature of rate of change control for frequency sweeping, classified in class 606, subclass 1.

V. Claims 21, 26 –27 drawn to a Method Combination-Subcombination paralleling Group III, with further subcombination specificity that the

handpiece discrimination includes detection based on the connection of the handpiece, classified in class 606, subclass 1.

VI. Claims 22 - 24, 32 - 34 drawn to System Structure of Group III rank with yet further subcombination specificity to sign phase change tracking, classified in class 606, subclass 169.

The inventions are distinct, each from the other because of the following reasons:

Each of the inventive groupings I - VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because:

In the case of Group I, the combination claimed does not require a handpiece as the ultrasound driver nor does it require any sweep speed control as pursued in subcombination features of Groups II – VI.

In the case of Group II, the subcombination claimed does pertain to a handpiece but does not require detection of connection (such as information stored in the probe connection) nor does it require any sweep speed control features as in the further subcombination specificities of Groups III – VI.

In the case of Group III, the subcombination portion has specificity to sweep speed changing and resonance point tracking which the aforementioned groups do not require, but does not require the specificity of Groups IV – VI, namely their

confinement to rate of change controls, or to specific detection of handpiece connection or connector information or to sign of phase differential-based controls.

An analogous argument may be made to support subcombination distinctness for these latter groupings and features.

In each case the subcombination has separate utility such as within systems or methods limited to the identified specific manner of speed control information origin or manner of exertion.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required

because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

For example class 329, 331 or 332 portions may be searched for practices associated with rapid lock-on using phase-locked loops; class 73 may be searched for subclasses associated with hardness/compliance/mechanical impedance/resonance (73/573-4,579,584,588-9) for those claims 1, 10-25 which do not limit to activities with human tissue (an 'operation' embracing a testing operation for example) since such a sweep resonance hunting might occur in association with quick lock-on or quick measurement result.

This application contains claims directed to the following patentably distinct species: Alternatively functioning species of indirect probe characteristic determination, i.e. species first (voltage phase/current phase based) claims 3, 7,11,15; species second (swept driving signal value-based) claims 4,8,12,16; species third (swept-band driving signal-based) claims 5,9,13,17. The species are independent or distinct because they are mnutually exclusive under the disclosure and patentably distinct.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, remainder of claims appear to be generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

[Alternately stated, the examiner is viewing applicants' inventions as a cascade of subcombinations, relating first to whether a handpiece need be involved as opposed to say a kinesitherapy device otherwise applied, then when a handpiece is involved as to whether sweep *speed* control need necessarily be involved, Then when a handpiece and sweep speed controls be involved, as to whether further subcombinations as probe connection or connector identification be invoked (since probe characteristics may be gleaned from in-circuit behaviour where a probe has no intrinsic type or calibration identification), or whether rate of speed change controls or phase difference sign crossing as further subcombination specificity need be invoked. And since the 'mechanics' of how frequency (feedback) control primarily derives – from voltage-current phase differential, from effective value of a current drive signal, or from information as to band frequency of operation (so as to establish for example an initial resonance hunting range) these appear to be mutually exclusive and supportive of species election.). In this sense the restriction and election sit astride what the

applicants' are terming 'embodiments' in the various figures since the Examiner is using rather the claims' wordings to identify inventive demarcations.]

Restriction is not an absolute meaning that all inventions present in an academic sense need not result in such a separate requirement hence the requirement here is a compromise irrespective of whether the 21 independent claims presented could academically be argued to divide into a larger restricted set. If applicants' identify a more logical or more procedurally correct way to group inventions as present here then they are requested to present that with a traversal for the examiner's consideration.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738.

Francis J. Jaworski
Primary Examiner

FJJ:fjj

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